

Notice of Allowability	Application No.	Applicant(s)	
	10/614,809	DU, BEN-CHUAN	
	Examiner	Art Unit	
	Benny Q. Tieu	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to Patent Application filed July 9, 2003.
2. The allowed claim(s) is/are 1-11.
3. The drawings filed on 09 July 2003 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

Reasons For Allowance

1. The following is an examiner's statement of reasons for allowance: Reesor et al. (U.S. Patent No. 4,694,482) teach a digital progress tone detector, for connection to a telephone line and a PABX, comprising circuitry for generating one or more reference tones having user definable frequencies and performing single frequency discrete Fourier transforms on one or more signals received from the telephone line at the defined frequencies, and providing an output signal to the PABX in response thereto. The output signal provides an indication of whether or not a predetermined one or more progress tone frequencies have been detected in the received signals. Because the generated reference tone frequencies are user definable, Reesor et al invention can be easily adapted for use in various foreign countries having different progress tone frequency requirements. The progress tone detector is simple, small and inexpensive, thus conforming to the miniaturization and cost efficiency requirements of modern day PABX circuits (column 5, line 37-column 6, line 37). Kurianski et al. (U.S. Patent Application Publication No. 2003/0135377) teach a method for detecting frequency in an audio signal for identifying digital music files that match an input signal bearing auditory information. An input signal is received and processed to extract basic musical information. The basic musical information is compared to musical information corresponding to digital music files, in order to identify digital music files that match the input signal (page 1, [0011]-[0014]). Nielsen (U.S. Patent Application Publication No. 2004/0204147) teaches a method of tuning an alert device in a portable communication apparatus having a microphone. The method involves the steps of recording, through the microphone, an acoustic signal which is emitted by the alert device in response to a drive signal; deriving a characteristic value of the recorded signal; comparing the characteristic

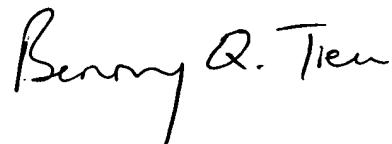
value with a reference value and generating a comparison result; and controlling the drive signal of the alert device in response to the comparison result. However, prior art of record fails to teach, or renders obvious, alone or in combination, a method and device, used in a communication apparatus, for generating a mediate ring information and playing a ring signal based on the mediate ring information. The device comprises a receiving module, a processing module, an analyzing module, a storage module and a playing module. The receiving module receives an audio digital signal. The processing module divides the audio digital signal into a plurality of sub-signals in a predetermined period and then transfers the plurality of sub-signals into a plurality of sets of frequency spectrums. The analyzing module retrieves at least one frequency with largest amplitude in each of the plurality of sets of frequency spectrums respectively, and stores the retrieved frequencies in series to generate the mediate ring information. The storage module stores the mediate ring information and a plurality of predetermined tone information. The playing module retrieves the mediate ring information and one of the plurality of predetermined tone information from the storage module, generates the ring signal based on the mediate ring information and the retrieved predetermined tone information, and then plays the ring signal as directly claim in independent claims 1 and 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Q. Tieu whose telephone number is 571-272-7490. The examiner can normally be reached on Monday-Friday: 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Benny Q. Tieu
Primary Examiner
Art Unit 2642